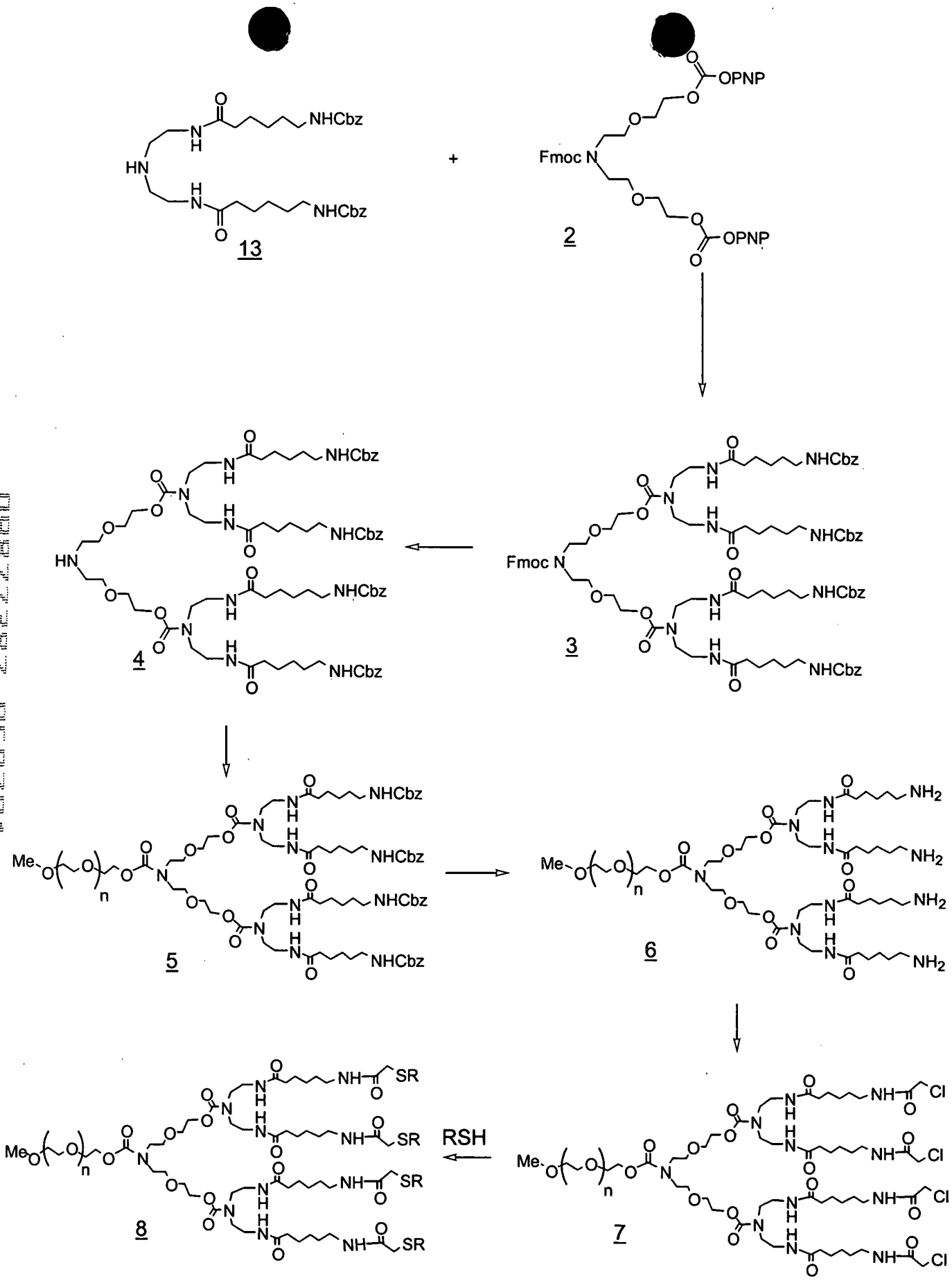


Figure 1

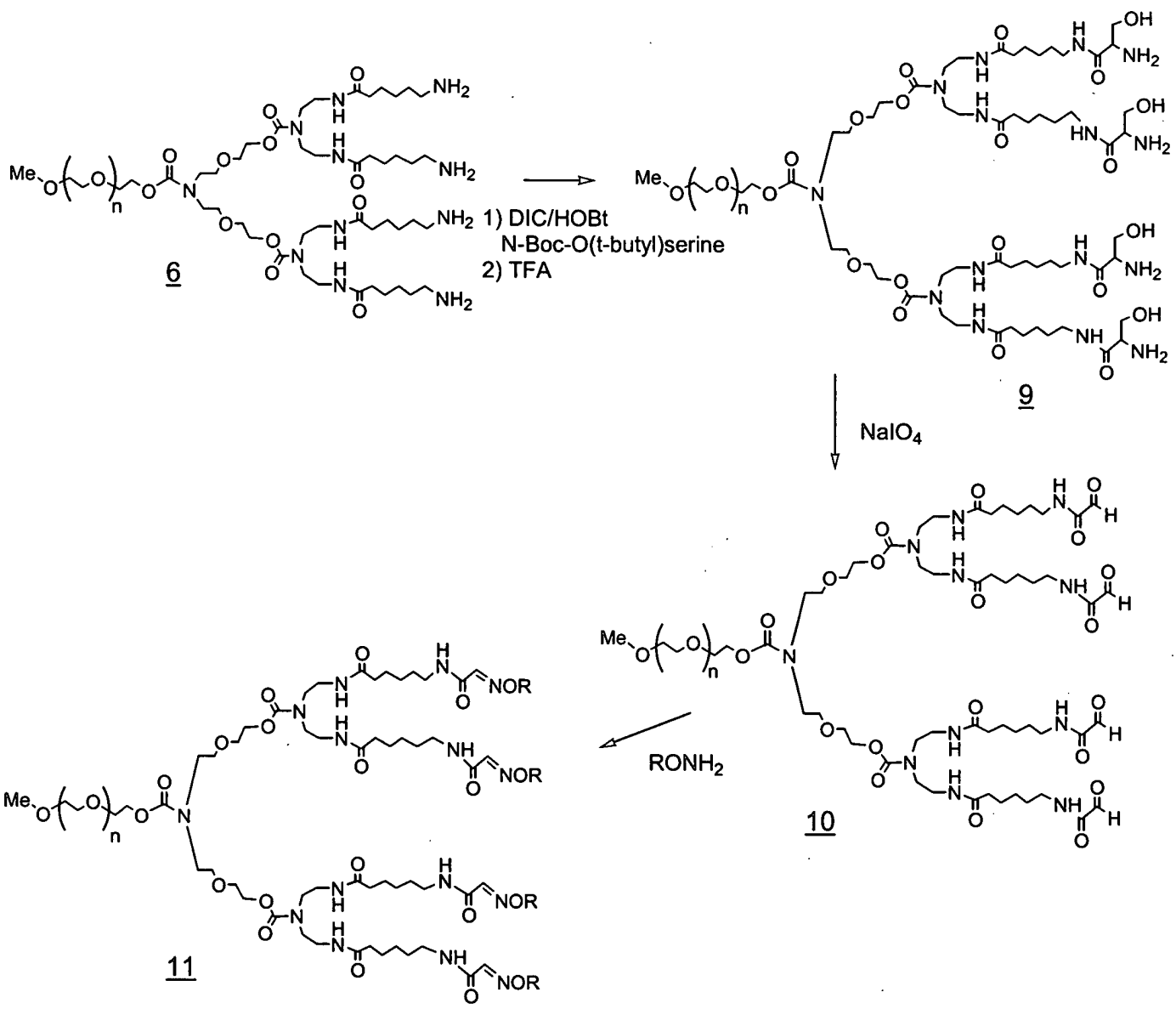


Figure 2

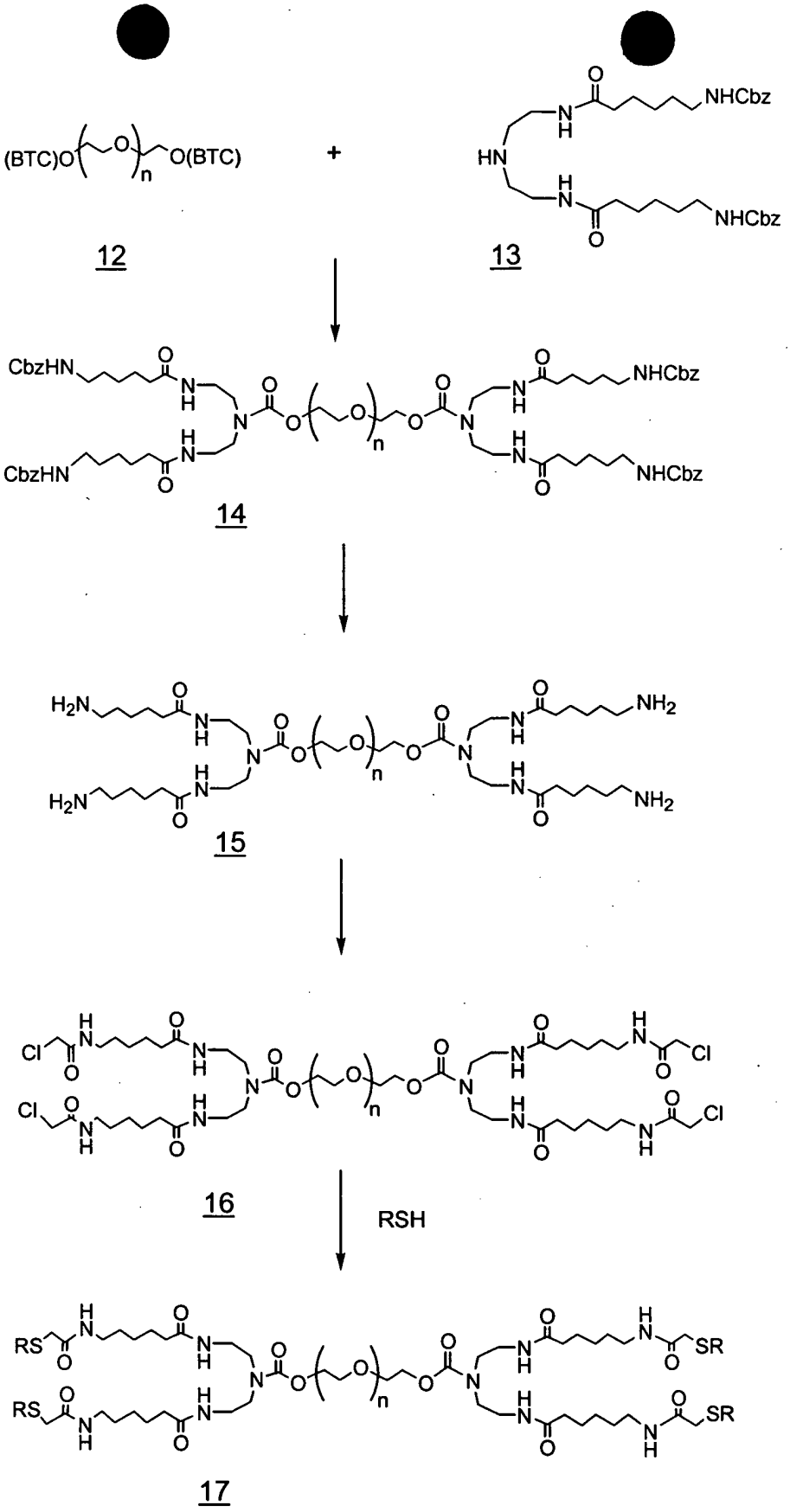

(BTC)O
O(BTC)
n
12
+
NHCbz
HN
NHCbz
13
CbzHN
NHCbz
CbzHN
NHCbz
14
H2N
NH2
H2N
NH2
15
Cl
Cl
Cl
Cl
16
RSH
RS
SR
RS
SR
17

Figure 3

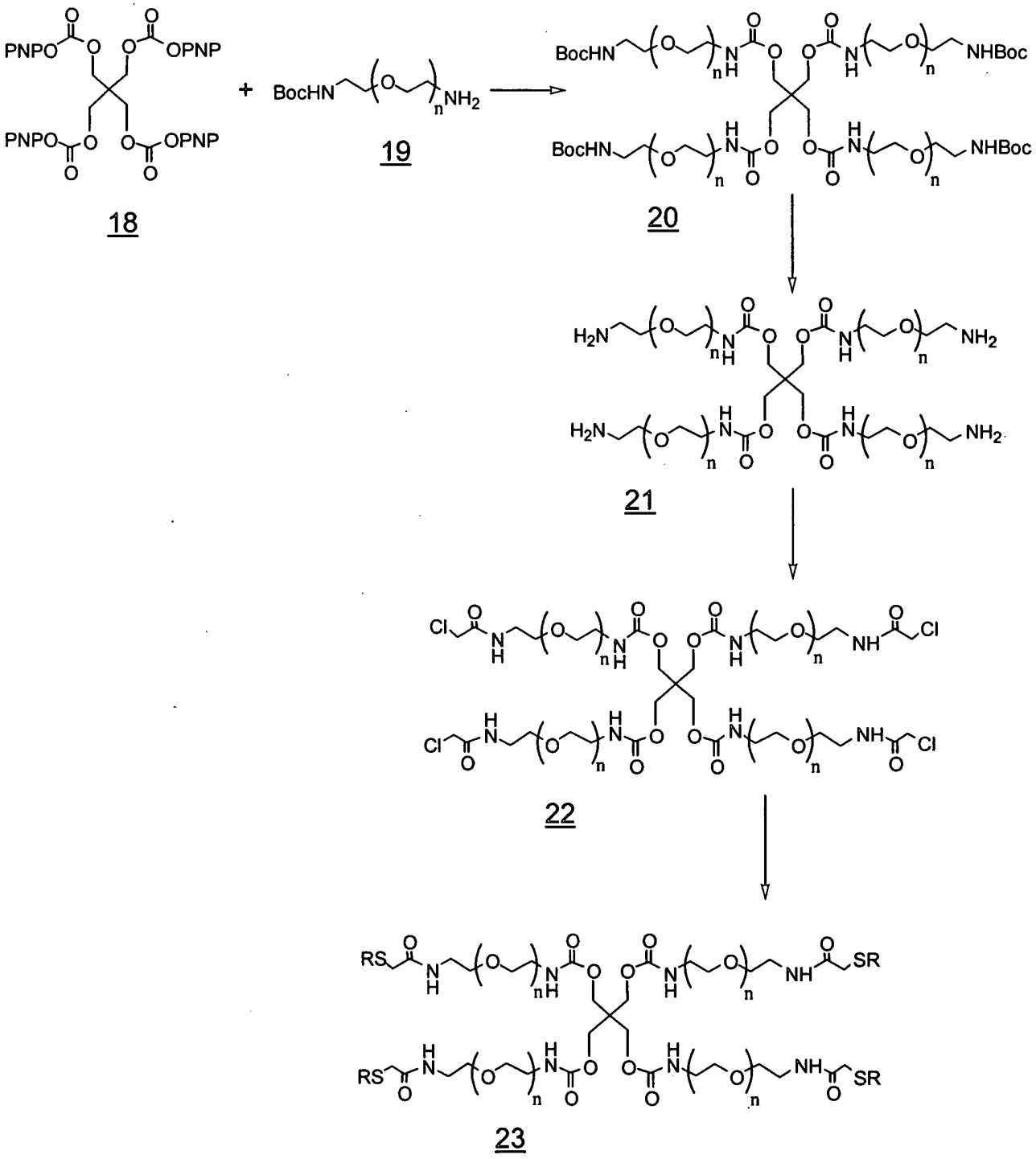

PNPO
OPNP
PNPO
OPNP
18
+ BocHN
NH2
19
BocHN
NHBoc
BocHN
NHBoc
20
H2N
NH2
H2N
NH2
21
Cl
NH
Cl
Cl
NH
Cl
22
RS
NH
SR
RS
NH
SR
23

Figure 4

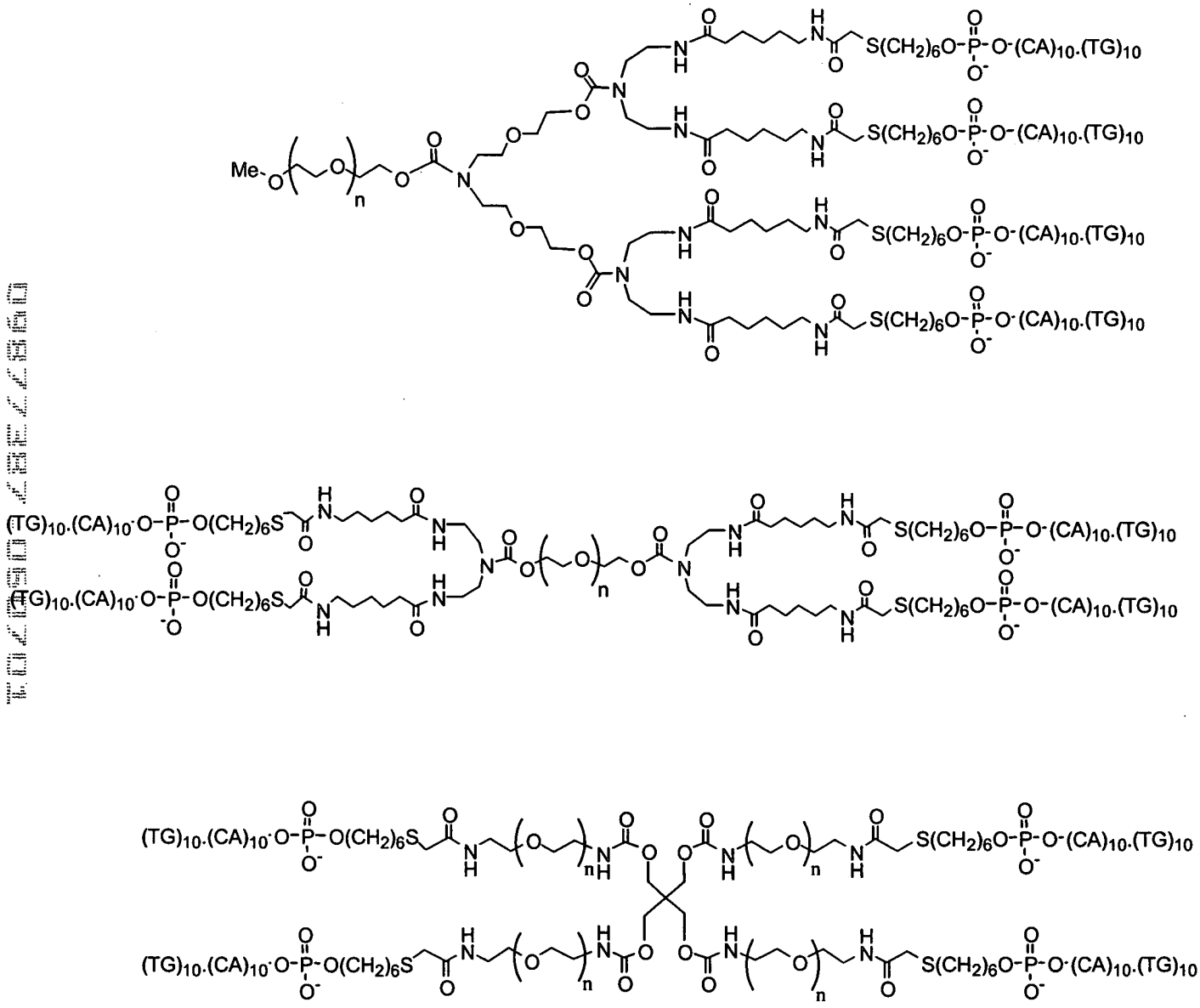


Figure 5

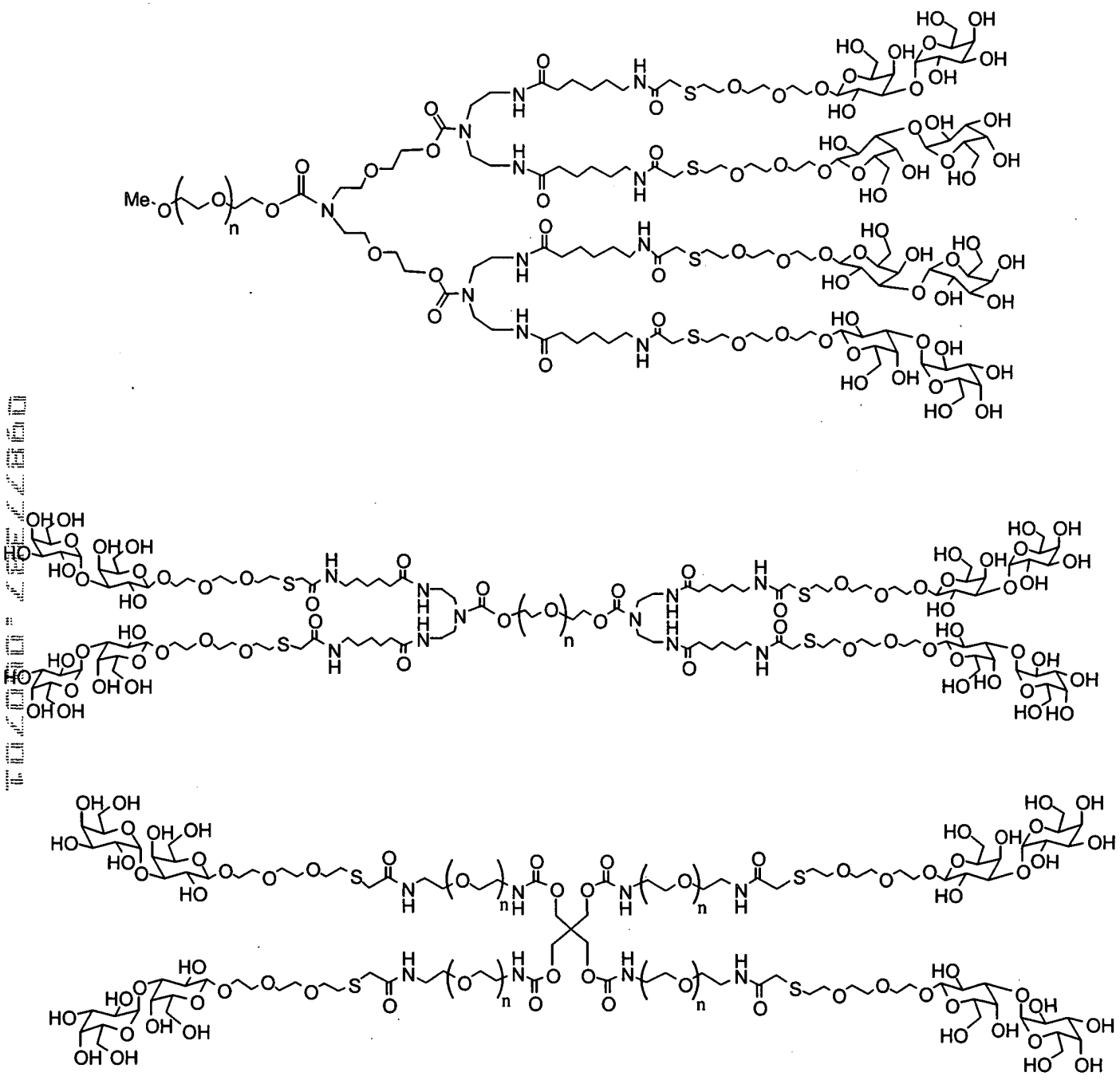
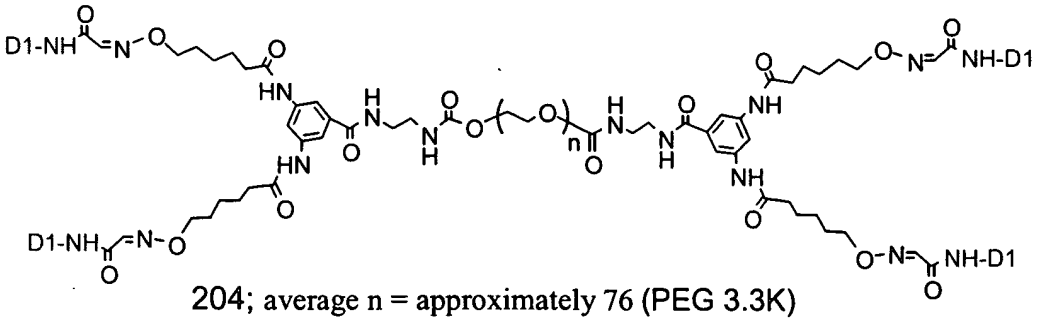
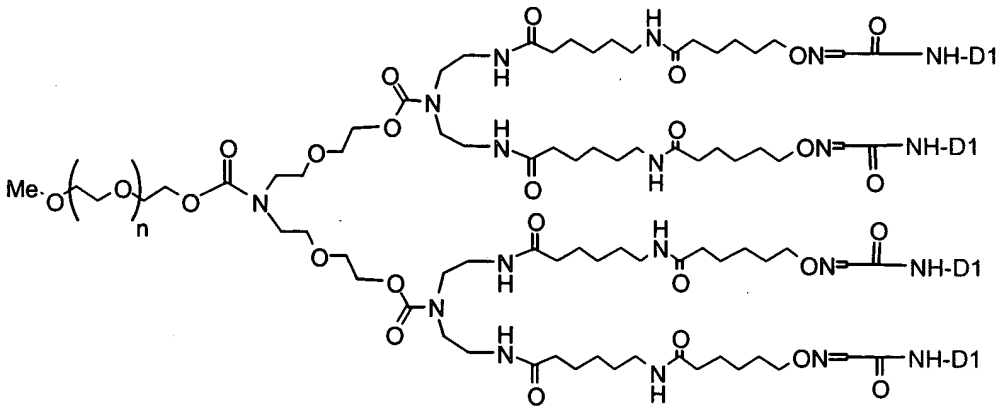


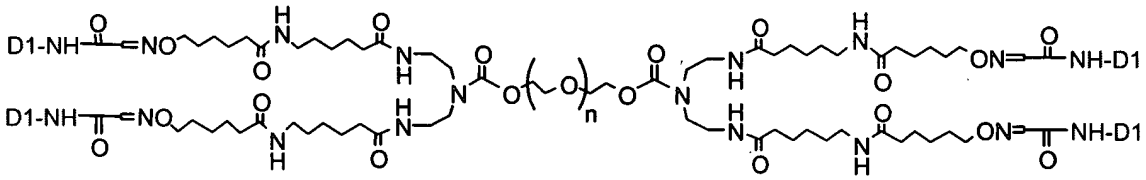
Figure 6



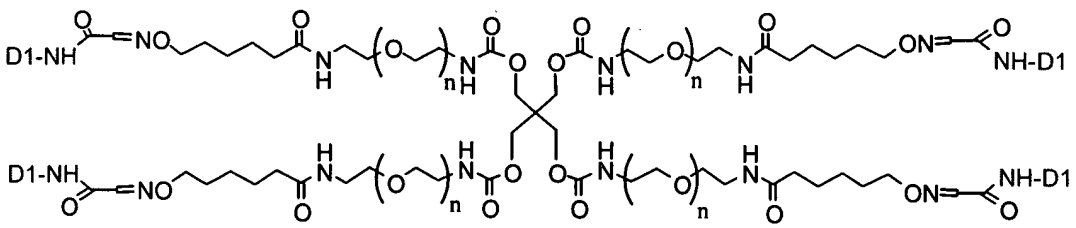
204; average n = approximately 76 (PEG 3.3K)



200; average n = approximately 503 (PEG 20K)
201; average n = approximately 114 (PEG 5K)
205; average n = approximately 261 (PEG 12K)
301; average n = approximately 682 (PEG 30K)

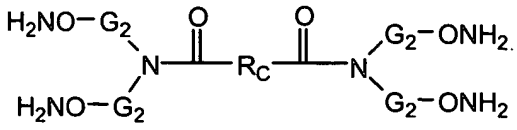


202; average n = approximately 503 (PEG 20K)

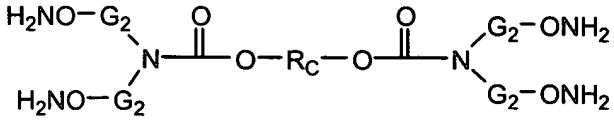


203; average n = approximately 125 (PEG 5K)
total PEG = 20K

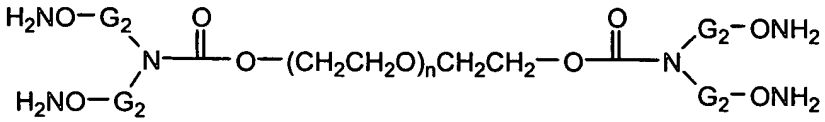
Figure 7



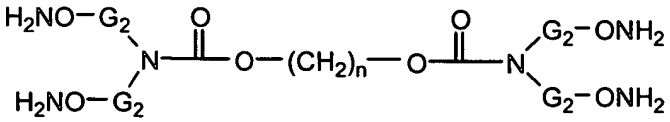
Formula 9



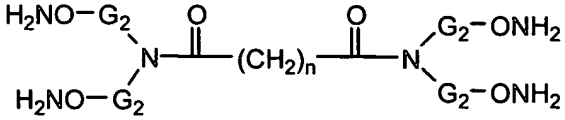
Formula 10



Formula 11



Formula 12



Formula 13

Figure 8

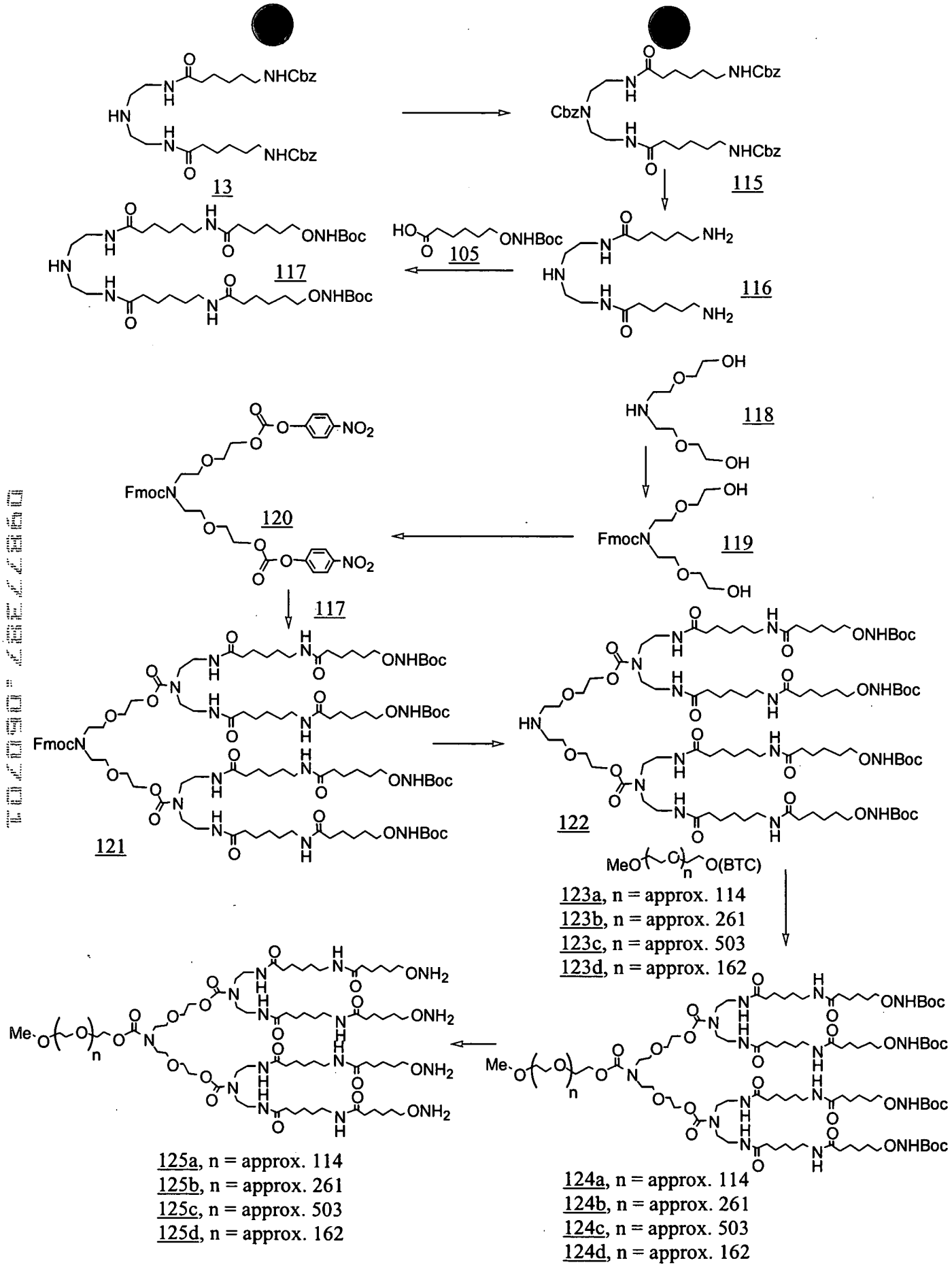

NHCbz
HN
NHCbz
13
CbzN
NHCbz
NHCbz
115
HO
ONHBoc
105
ONHBoc
117
NH2
HN
NH2
116
OH
HN
118
OH
NO2
FmocN
120
OH
FmocN
119
OH
117
ONHBoc
FmocN
ONHBoc
ONHBoc
ONHBoc
121
ONHBoc
HN
ONHBoc
ONHBoc
ONHBoc
122
MeO
O(BTC)
123a, n = approx. 114
123b, n = approx. 261
123c, n = approx. 503
123d, n = approx. 162
ONHBoc
Me
ONHBoc
ONHBoc
ONHBoc
ONH2
Me
ONH2
ONH2
ONH2
125a, n = approx. 114
125b, n = approx. 261
125c, n = approx. 503
125d, n = approx. 162
124a, n = approx. 114
124b, n = approx. 261
124c, n = approx. 503
124d, n = approx. 162

Figure 9

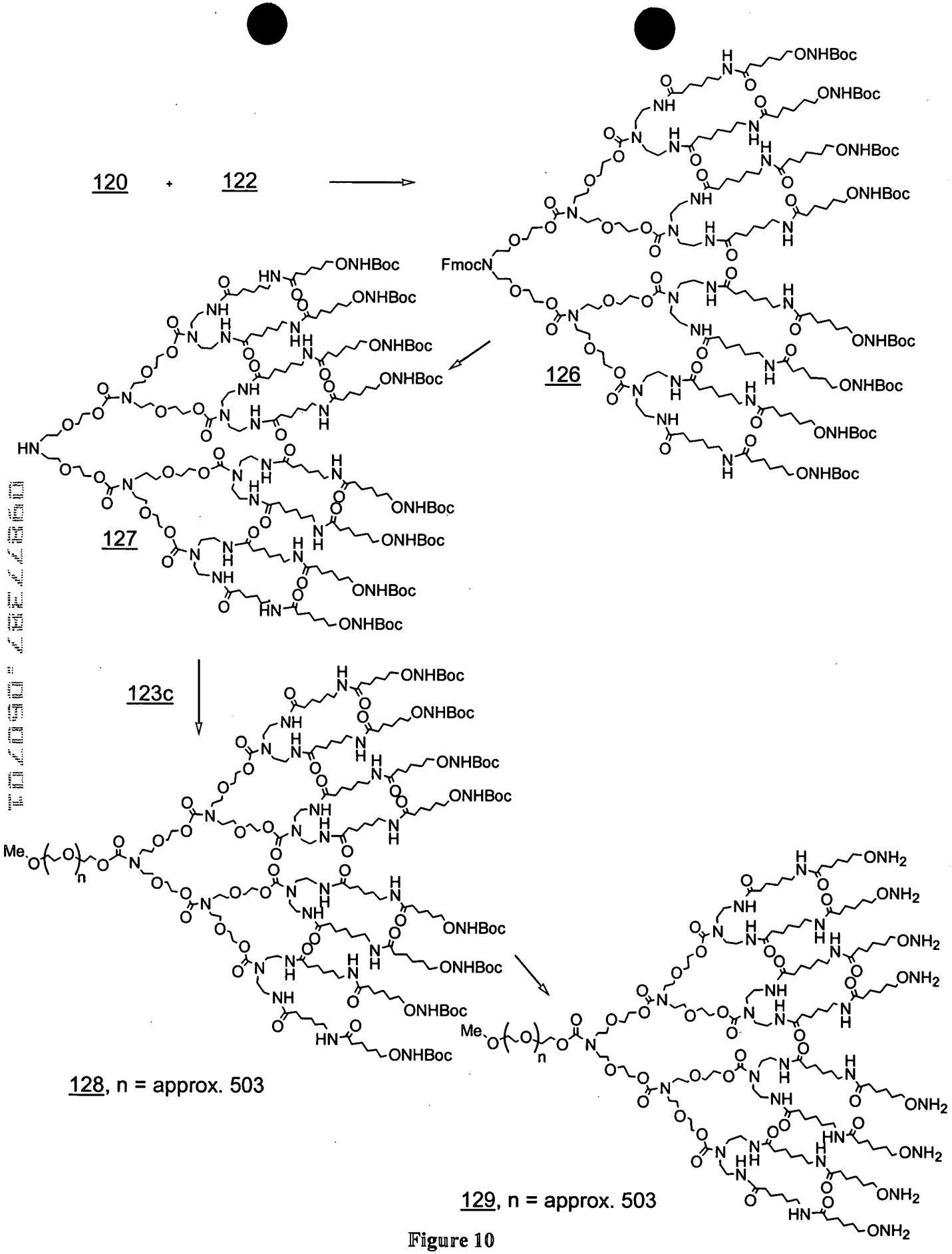


Figure 10

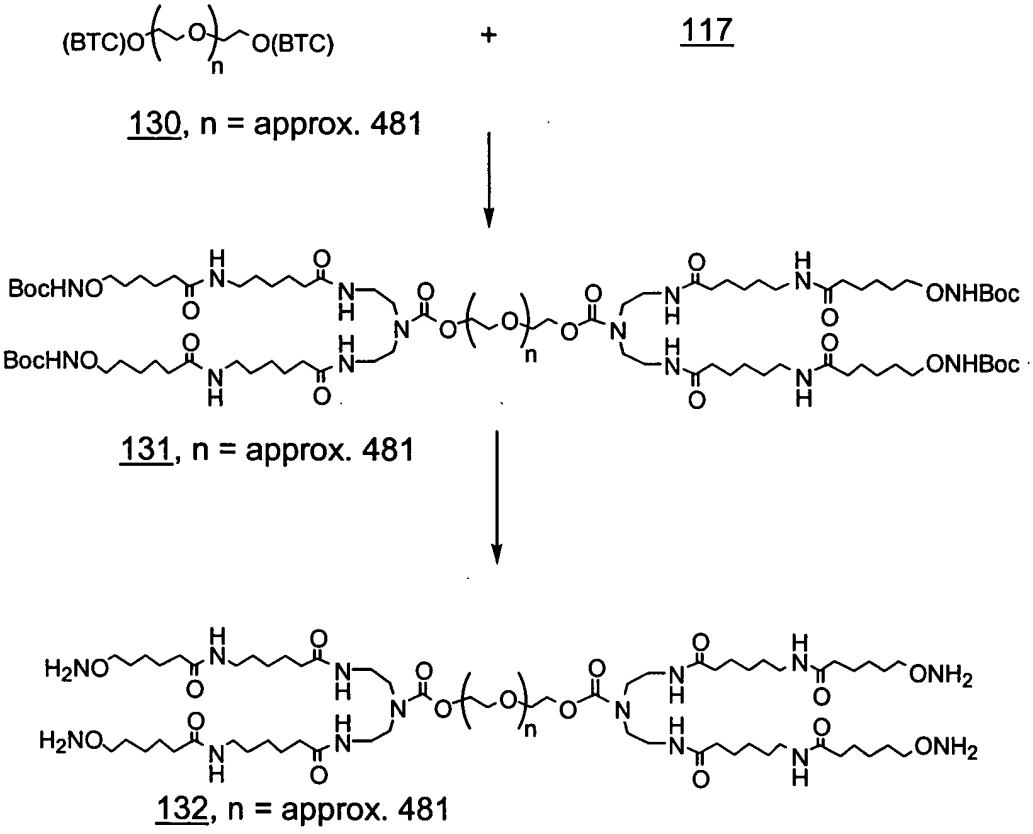

(BTC)O
O(BTC)
n
+
117
130, n = approx. 481
BocHNO
BocHNO
ONHBoc
ONHBoc
131, n = approx. 481
H2NO
H2NO
ONH2
ONH2
132, n = approx. 481

Figure 11

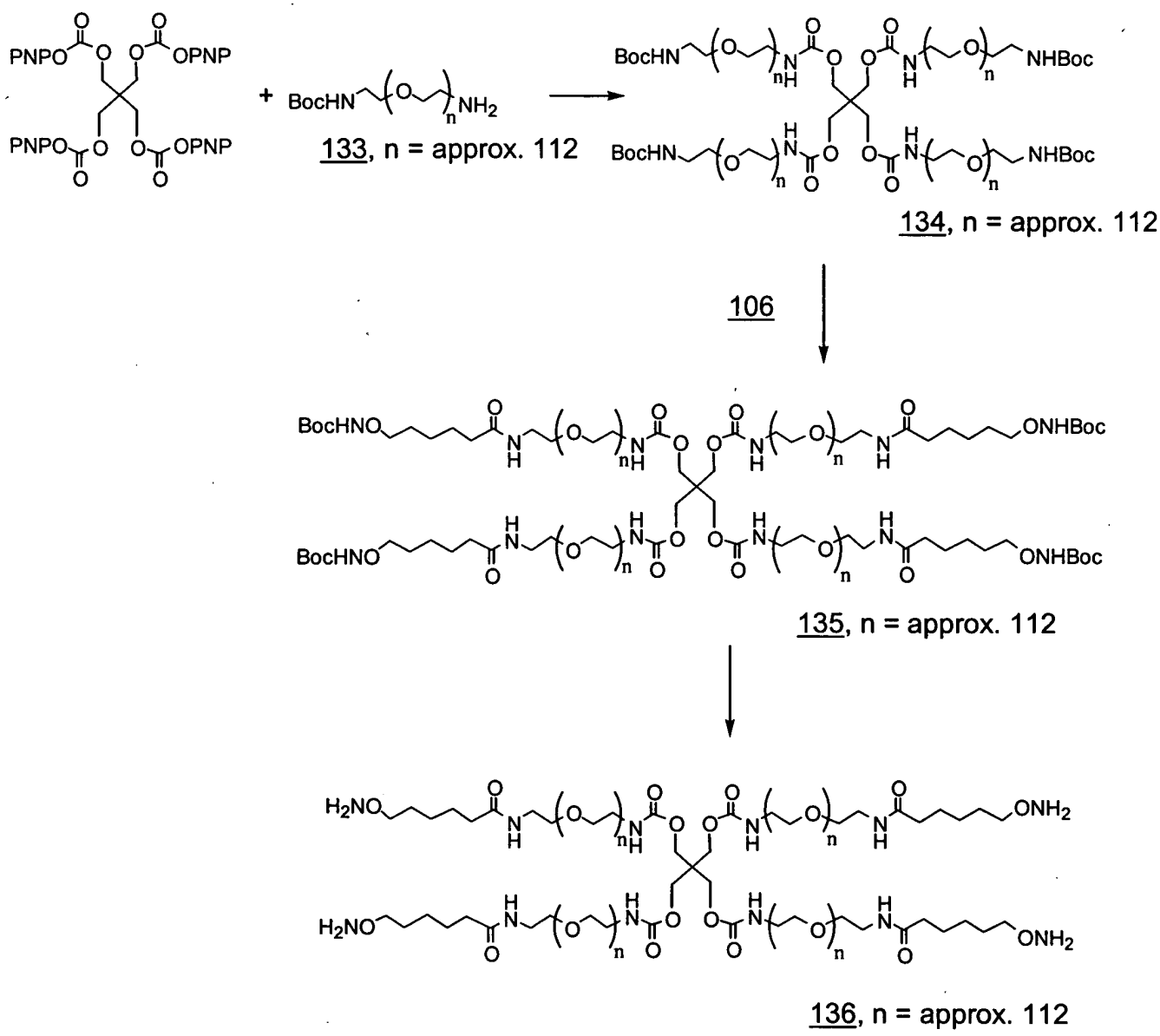

PNPO
OPNP
PNPO
OPNP
+ BocHN
NH2
133, n = approx. 112
BocHN
NHBoc
BocHN
NHBoc
134, n = approx. 112
106
BocHNO
ONHBoc
BocHNO
ONHBoc
135, n = approx. 112
H2NO
ONH2
H2NO
ONH2
136, n = approx. 112

Figure 12

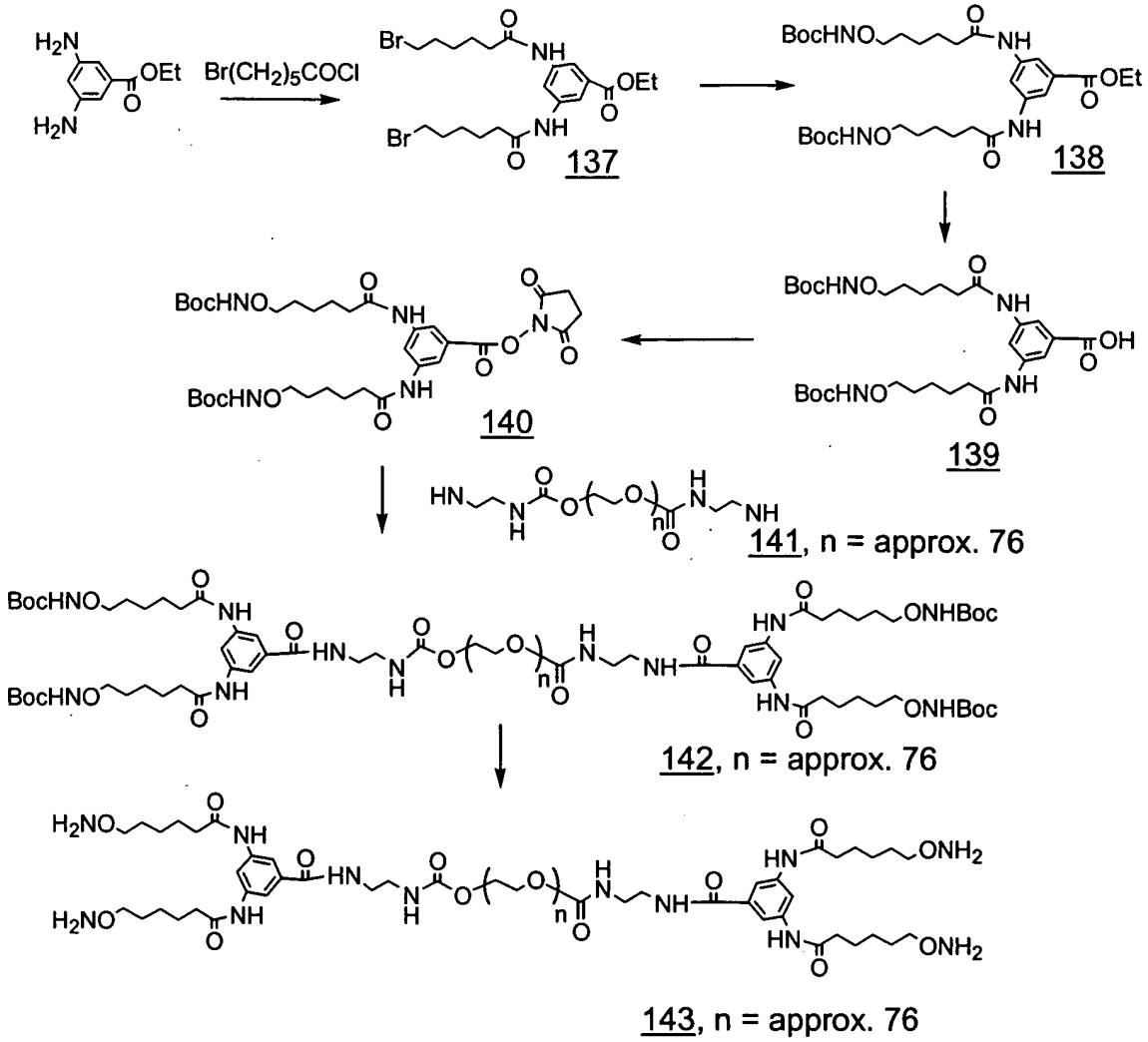


Figure 13

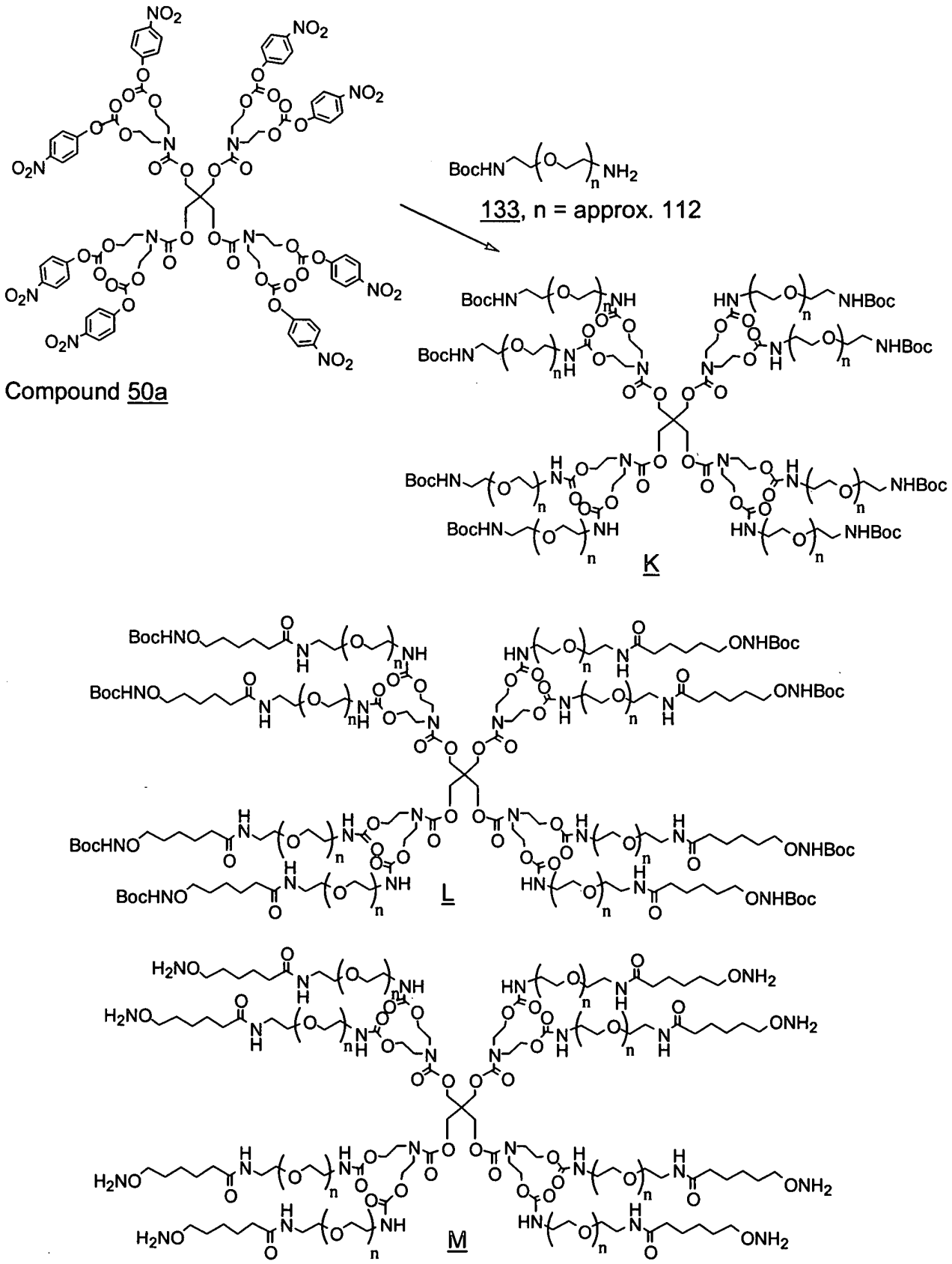
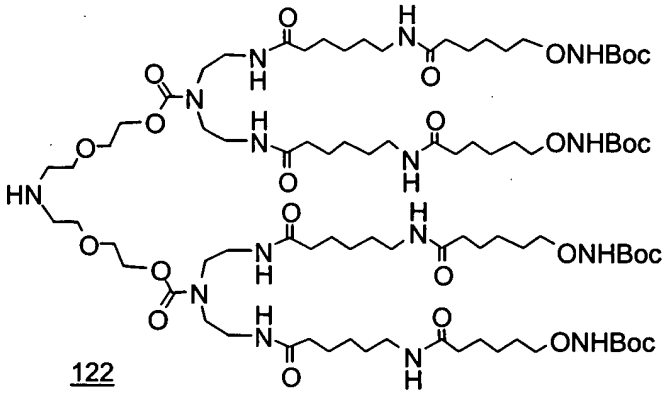
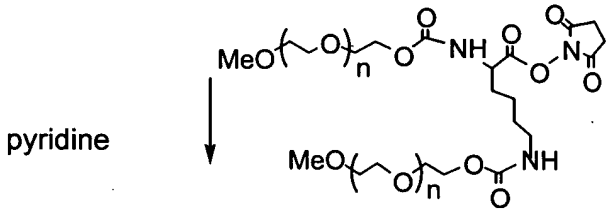


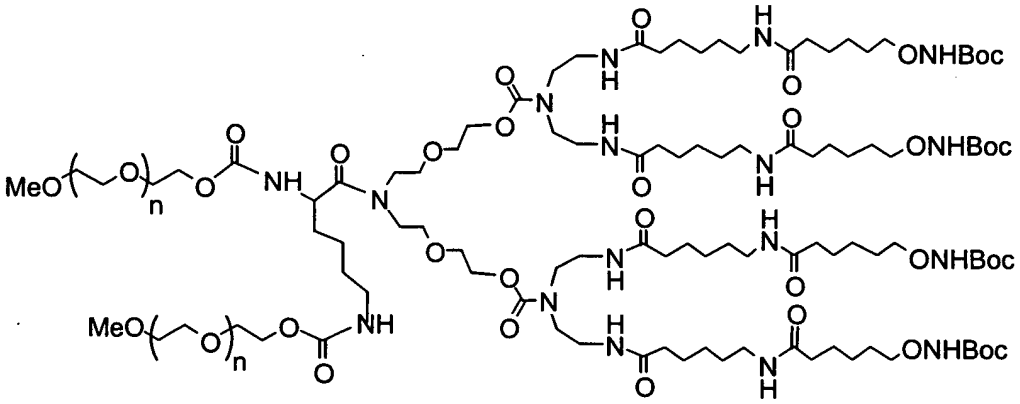
Figure 14



122

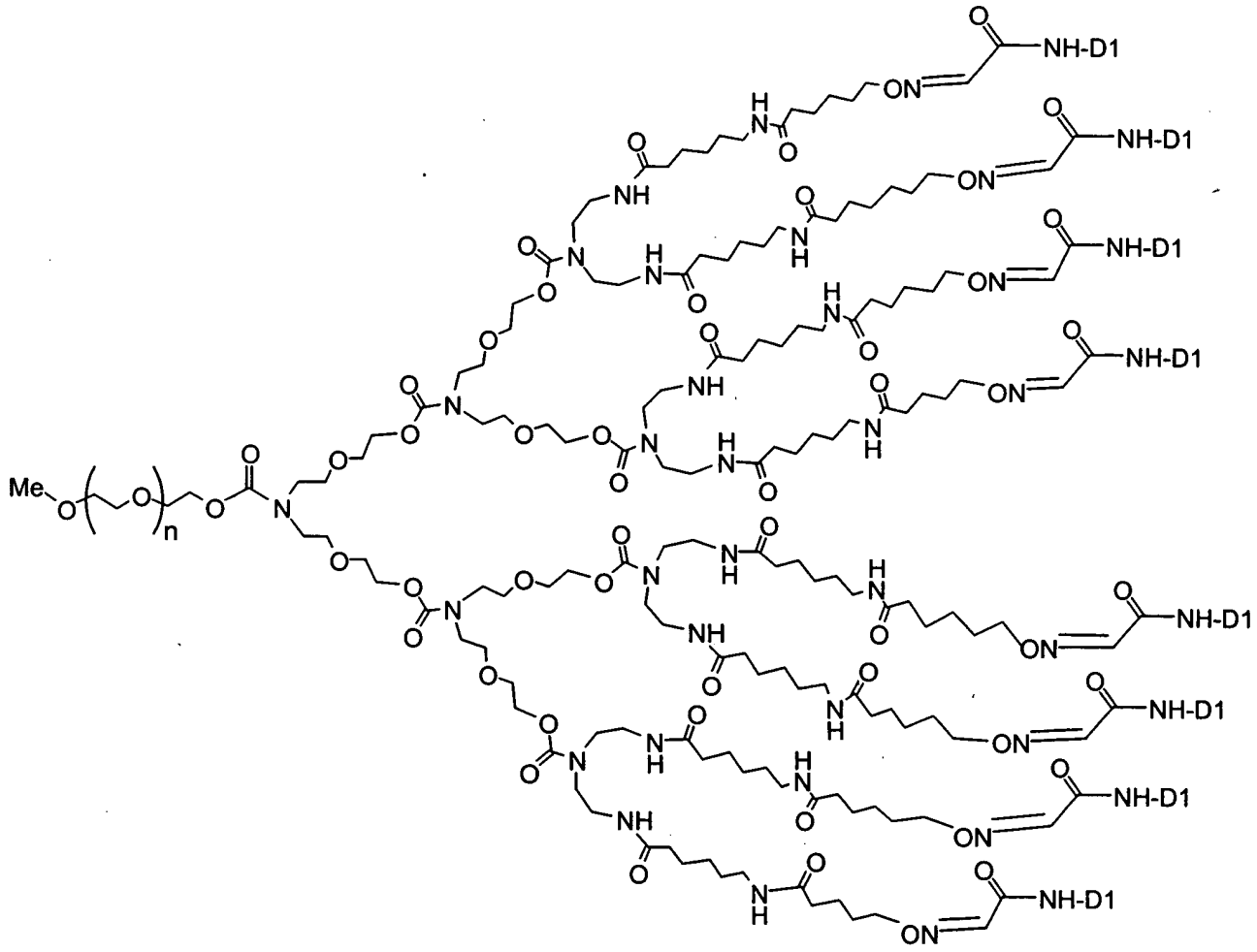


O



P

Figure 15



300, n = approx. 503

Figure 16

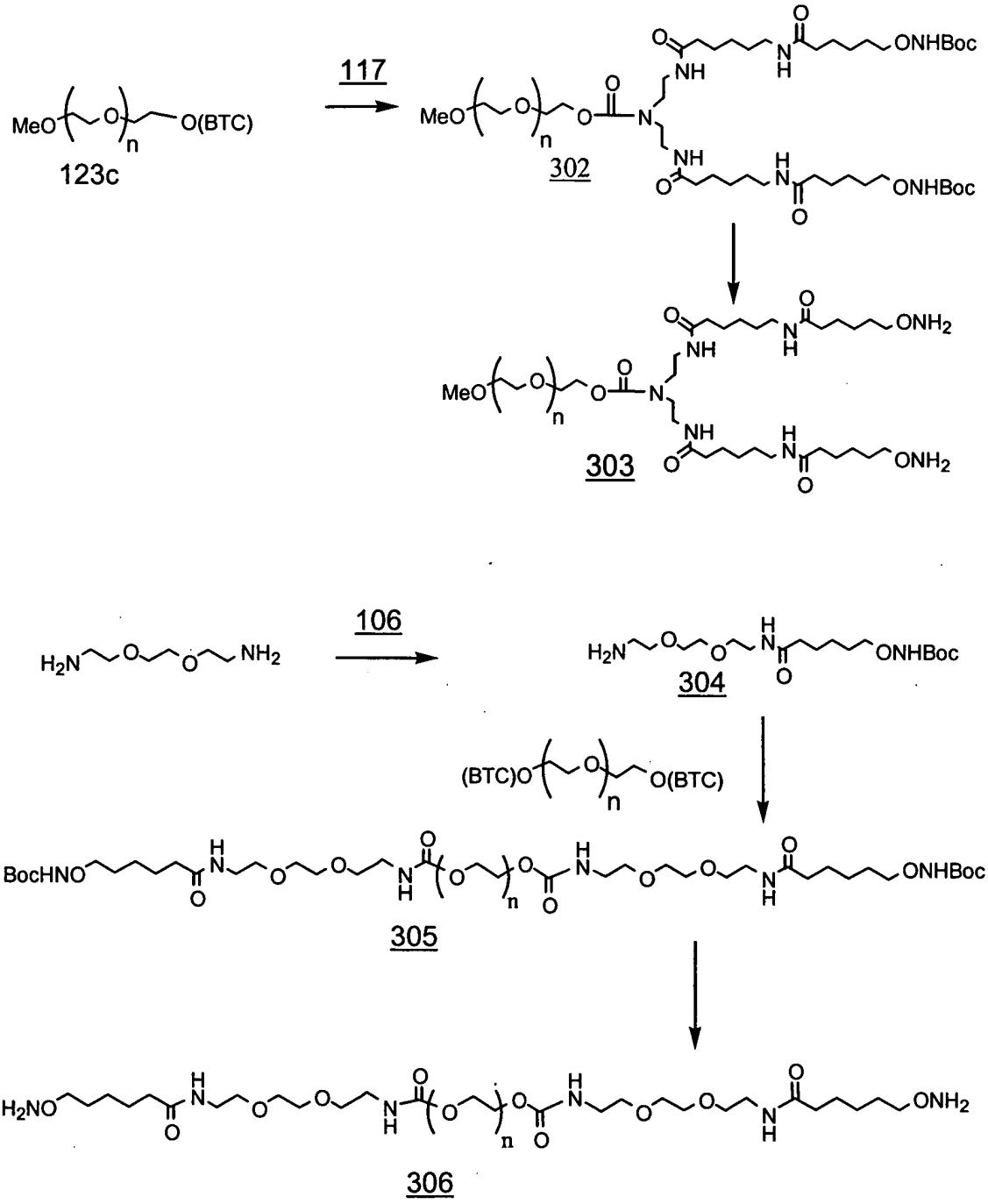
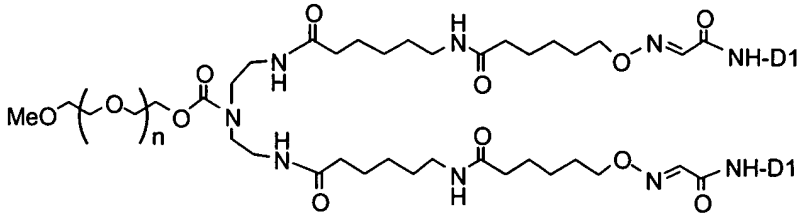
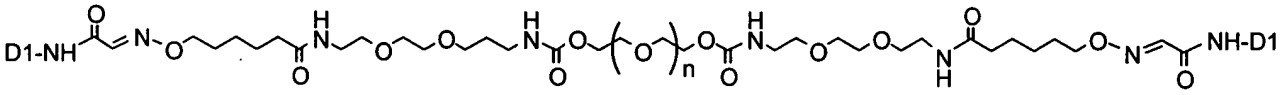

117
MeO
O(BTC)
n
123c
302
ONHBoc
NH
ONH2
303
106
H2N
NH2
304
(BTC)O
305
BocHNO
H2NO
306

Figure 17



309, n = approx. 500

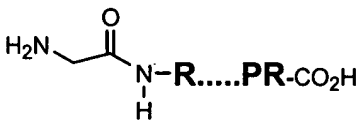


310, n = approx. 500

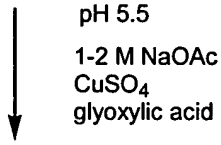
Figure 18

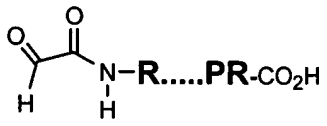
```
gga cgg acc tgt ccc aag cca gat gat tta cca ttt tcc aca gtg gtc      48
Gly Arg Thr Cys Pro Lys Pro Asp Asp Leu Pro Phe Ser Thr Val Val
 1               5                  10                  15

ccg tta aaa aca ttc tat gag cca gga gaa gag att acg tat tcc tgc      96
Pro Leu Lys Thr Phe Tyr Glu Pro Gly Glu Glu Ile Thr Tyr Ser Cys
            20                  25                  30

aag ccg ggc tat gtg tcc cga gga ggg atg aga aag ttt atc tgc cct     144
Lys Pro Gly Tyr Val Ser Arg Gly Gly Met Arg Lys Phe Ile Cys Pro
        35                  40                  45

ctc aca gga ctg tgg ccc atc aac act ctg aaa tgt aca ccc aga gta     192
Leu Thr Gly Leu Trp Pro Ile Asn Thr Leu Lys Cys Thr Pro Arg Val
    50                  55                  60
```

Figure 19



Domain 1 of β_2GPI (D_1, where bold letters stand for single letter amino acid code of terminal amino acids of Domain 1 of β_2GPI)





Transaminated Domain 1 (**TA/D1**)
Comprising a terminal glyoxyl group

Figure 20